

EXECUTIVE OFFICER'S SUMMARY REPORT  
1:00 p.m., February 10, 2004  
North Coast Regional Water Board  
Hearing Room  
5550 Skylane Boulevard, Suite A  
Santa Rosa, CA 95403

ITEM: 2

SUBJECT: Status Report on TMDL Development

## DISCUSSION

### **The TMDL Program in the North Coast Region**

#### **Organization of the Program**

The TMDL Program for the North Coast Region is funded by about 12 positions from the TMDL program and xx positions in the timber harvest program. Of these, 9.5 are currently assigned to TMDL development (7 for consent decree watersheds and 2.5 for Elk River and Freshwater Creek), 2 are assigned to implementation planning, 2 are assigned to implementation, and 1 position is dedicated to administrative support. The TMDL program is focused in the Watershed Management Division (9 positions), but includes staff in both the Watershed Protection and Timber Harvest Divisions. The organization chart, Figure 1, shows where the various staff in the program are located.

#### **TMDL Program Elements and Overall Program Status**

The TMDL Program addresses the development and implementation of TMDLs for waters included on the state's list of impaired waters developed pursuant to Section 303(d) of the Clean Water Act. Table 1 summarizes the listings in the region, by pollutant. A single listing comprises a surface water body segment and a pollutant. Because some water bodies were listed by segments, have multiple, related pollutant listings, or have the same listings in adjacent watersheds, your staff has grouped listings into projects. In all, the 102 listings in the region have been grouped into 38 projects.

The TMDL Roundtable, representing the nine Regional Water Boards and State Water Board TMDL Program managers, has developed draft guidance titled "A Process for Addressing Impaired Waters in California". The guidance identifies eight phases in the process, as shown in Table 2. Your staff is organized to address TMDL issues for the 38 projects in the region consistent with these eight phases. The first four phases are the focus of work in TMDL

development, including current activities in the Timber Harvest Division for Elk River and Freshwater Creek and in the TMDL Development Unit for consent decree and other watersheds. Phases 5-7 address implementation planning and are currently managed in the Planning Unit. Phase 8, Implementation, may be managed in numerous programs and units. At present, implementation efforts are focused in the Garcia watershed, with involvement from the Nonpoint Source Management Unit and the Timber Harvest Division.

Table 3 presents all the TMDL projects in the region, notes the watershed and pollutants of concern, and summarizes the status of each TMDL project, by reference to the eight phases.

### **Status of TMDL Development in the Region**

Under the terms of a Consent Decree entered into between U.S. EPA and a group of plaintiffs, a number of watersheds in the region were identified for development of technical TMDLs. Since 1997, U.S. EPA has established a series of technical TMDLs in conformance with schedules developed as part of the Consent Decree. Technical TMDLs are comprised of the analysis and calculation of the TMDL, but do not include a plan to implement the TMDL. Working with U.S. EPA in these efforts, Regional Water Board staff have prepared Technical Support Documents (TSDs) that have formed the basis for U.S. EPA technical TMDLs in the Gualala, Mattole, Navarro, Noyo, and Redwood Creek watersheds. Simultaneously, U.S. EPA has developed and established technical TMDLs for the Big, Albion, Ten Mile, North Fork Eel, South Fork Eel, South Fork Trinity, Trinity and Van Duzen watersheds.

With U.S. EPA's establishment of the Mattole TMDLs at the end of 2002, Regional Water Board staff will no longer be preparing TSDs for U.S. EPA. Instead, your staff will be leading the development of technical TMDLs for impaired waterbodies in the Klamath Basin, where Consent Decree schedules call for completion of technical TMDLs between now and the end of 2005. Regional Water Board adoption of TMDLs with Action Plans for all Consent Decree TMDLs in the Klamath Basin is scheduled over the next four years, through the end of 2006. During this same timeframe, U.S. EPA will be preparing technical TMDLs for the Eel River and Mad River watersheds using U.S. EPA staff and contractor resources.

Klamath Basin water issues are receiving nationwide attention, driven in part by conflicts between agricultural uses, mostly in the upper basin, and a variety of other uses and interests, including fisheries, recreational, and tribal groups, located throughout the basin. The TMDLs being developed in Oregon and California are one program among a number of activities in process seeking to improve the understanding and management of Klamath Basin resources.

### **Salmon and Upper Lost River TMDLs**

The first TMDL analyses scheduled for completion are those for nutrients and temperature in the Salmon River and in the upper portion of the Lost River (Clear Lake reservoir area). A draft Salmon TMDL analysis, originally scheduled for completion in June 2003, will be completed in March 2004. Preliminary results of the analysis indicate little or no evidence of impairment associated with nutrient conditions in this watershed. We anticipate recommending delisting of this watershed for nutrient impairment. A draft TMDL analysis for the upper Lost River is complete. Again, preliminary results indicate little or no evidence of nutrient impairment. Both

of these technical TMDLs were postponed to enable the use of limited staff resources to develop and implement summer monitoring in other parts of the Klamath basin. In addition, unusual conditions in the upper Lost in 2002 (the dam that impounds Clear Lake was being replaced) necessitated additional monitoring by Regional Water Board staff in the summer of 2003 to characterize post-construction conditions.

### **Scott River Temperature and Sediment TMDLs**

The Scott River is listed as impaired for temperature and sediment. Technical TMDL analyses are due in September 2004. A Technical Advisory Group (TAG) was formed last year to provide input to staff on TMDL development, and has met twice. A temperature monitoring plan, reviewed by the TAG, was implemented in the summer of 2004. Monitoring addressed temperature conditions, and factors affecting temperature, such as streamflow, vegetation, channel conditions, groundwater inputs, and climate. An overflight of the Scott River mainstem and key tributaries was completed in July 2003 using thermal infrared (TIR) imagery. This provides a snapshot of surface water temperature conditions for use in describing and interpreting temperature dynamics in the watershed. This work has been performed by your staff, with support from several contractors including UC Davis Information Center for the Environment (ICE) and Watershed Sciences (TIR imagery).

Sediment source analysis also has begun, with aerial photo analysis of unstable areas, and road inventory work. This work is being performed using California Department of Forestry and TMDL program contract resources. The TAG is providing input on sediment source analysis efforts.

### **Shasta River Temperature and Dissolved Oxygen TMDLs**

The Shasta River is listed as impaired for temperature and low dissolved oxygen (DO). Technical TMDL analyses are due in December 2004. A Technical Advisory Group (TAG) was formed in 2003 to provide input to staff on TMDL development, and has met three times. A dissolved oxygen and nutrient monitoring plan, reviewed by the TAG, was implemented this summer, and will continue through this winter. The program includes continuous water quality monitoring at selected locations, grab samples at these and additional locations, flow measurements, and focused monitoring to answer specific questions (such as the role of stream sediment on DO conditions). UC Davis ICE has been retained to develop water quality models to support the TMDL analysis. This work has been done by your staff, with contract assistance from the U.S. Geological Survey and UC Davis ICE.

### **Lower Lost River TMDLs**

The Lower Lost in California is listed as impaired for temperature, nutrients, and pH. The technical analysis is scheduled for completion in June 2005. U.S. EPA will establish this TMDL in parallel with your consideration of the Action Plan in 2006. A monitoring program for the lower portion of the Lost River in California was implemented this summer by your staff, in close coordination with monitoring of the Oregon portions of the river being conducted by Oregon Department of Environmental Quality. Subsequent to the June 2003 interagency

meeting to assess potential analytical approaches for understanding Lost and mainstem Klamath water quality conditions, your staff worked with U.S. EPA and ODEQ to retain contractor support for water quality modeling. The contractor, Tetra Tech, is now on board and expects to have initial data analysis and model recommendation tasks complete in the next several months. Additional monitoring and focused studies are expected to be necessary this summer.

### **Klamath River TMDLs**

The Klamath River is listed as impaired for temperature, nutrients, and low DO. The technical analysis is scheduled for completion in December 2005. A monitoring program for the mainstem Klamath River in California continued in 2003. This work was performed under contract with the U.S. Geological Survey. In November, EPA awarded a contract to Tetra Tech for water quality modeling services, including developing a water quality model on the mainstem Klamath below Iron Gate Dam. Using future funds, we expect to be able to extend this model to include the entire river from Link River Dam at the outlet of Upper Klamath Lake to the Pacific Ocean. The model will form the basis for understanding current conditions in the river system, and for developing the framework for changes needed to achieve water quality compliance in this important river. In support of the modeling, additional monitoring and focused studies are expected to be needed this summer.

### **Summary of Data Collected By or Under the Direction of Regional Board Staff: 2001-2003**

Your staff have been actively engaged in collecting data to support the TMDL development in the Klamath Basin over the last three field seasons. Data have been collected both by staff and by organizations under contract, including U.S. Geological Survey and UC Davis ICE. Table 4 summarizes the types of data collected and the watersheds where these data were collected.

### **Middle Fork Eel River**

Under the agreement between U.S. EPA and the North Coast Region, U.S. EPA is responsible for developing some technical TMDLs to meet the terms of the consent decree, including the Eel River TMDLs. In December 2003, U.S. EPA established technical TMDLs for sediment and temperature in the Middle Fork Eel River. Your staff provided support to U.S. EPA in completing the technical analysis for the sediment TMDL.

### **Upper Main Eel River**

U.S. EPA intends to establish technical TMDLs for sediment and temperature for the Upper Main Eel watershed by the end of 2004. Work has begun on this effort. U.S. EPA and your staff are coordinating on data collection methodology, data interpretation, and resolving related technical approach issues as they arise.

## **Coordination with Oregon Department of Environmental Quality and U.S. EPA**

Staff are involved in ongoing coordination with staff of ODEQ and U.S. EPA on a variety of TMDL development issues. Your staff participate in an established Klamath-Lost TMDL coordination workgroup that also includes representatives of ODEQ and U.S. EPA Regions 9 and 10. We recently signed a four-agency Memorandum of Agreement (attached) to guide the TMDL efforts in the Klamath and Lost Rivers. Coordination has addressed overall roles and responsibilities, issues of differing water quality standards in the two states, differences in Section 303(d) listings, synchronized monitoring, modeling approaches, and stakeholder involvement. We are working effectively and productively with our Oregon counterparts and with U.S. EPA.

We also are coordinating with U.S. EPA in development of the Upper Main Eel TMDLs, where U.S. EPA is the lead.

## **Outreach to Stakeholders, Tribes, and Other Agencies**

Your staff are engaged in various outreach efforts in the Klamath Basin in support of the TMDL development process. These include:

- Participation in quarterly meetings with U.S. EPA and representatives of the five tribes in the Klamath Basin in California. These meetings address the tribal trust responsibilities of U.S. EPA with respect to the tribes.
- Participation in regular meetings with NOAA Fisheries and the U.S. Fish and Wildlife Service, as part of U.S. EPA's endangered species consultation responsibilities.
- Meetings with groups and organizations representing a range of stakeholder interests in the Basin.
- Coordination meetings with Department of Fish and Game, Department of Water Resources, and State Water Resources Control Board staff on Klamath issues.
- Technical Advisory Groups on TMDL development in the Shasta and Scott watersheds.
- Participation in various efforts of other agencies and groups related to the Regional Water Board's mission, including the two coho salmon recovery planning efforts, the Klamath Basin Fisheries Task Force, the fish-kill avoidance planning group organized by your staff, and others.
- Participation in the PacifiCorp hydroelectric facilities Federal Energy Regulatory Commission relicensing process.